

Claims

1.-17. (cancelled)

18. (new) A method for routing of data packets for avoiding circulation of the data packets, in a packet-switched network, made up of routers, which uses traffic distribution, the method comprising:

forwarding a data packet by an internal router of the packet-switched network; and

providing alternative routes for the forwarding of the data packet, wherein

the forwarding of the data packet is carried out by using at least one item of data about the access interface at which the data packet entered the packet-switched network and one item of data about the egress interface, at which the data packet is to leave the packet-switched network.

19. (new) The method according to Claim 18, further comprising:

providing the data packet at the access interface with identification data used by the internal router to identify the access interface and the egress interface.

20. (new) The method according to Claim 19, wherein the identification data include an identifier or a network address for the access interface and the egress interface.

21. (new) The method according to Claim 20, wherein

at the access interface the data packet is supplied with a data field, and wherein

the internal router takes from the data field the data about the access interface at which the packet entered the packet-switched network and the data about its egress interface.

22. (new) The method according to Claim 21, wherein

the data packet is supplied with a data field, wherein

the data field is added onto the data packet as a header or a trailer, and wherein

the data field includes an identifier for the access interface and the egress interface.

23. (new) The method according to Claim 21, wherein

the data packet is supplied with two data fields, wherein

each of the data fields is added to the data packet as a header or a trailer, wherein

one of the data fields includes an identifier for the access interface and the other data field includes an identifier for the egress interface.

24. (new) The method according to Claim 22, wherein a bit sequence is appended to or prefixed to at least one data field, identifying the data field as such.

25. (new) The method according to Claim 22, wherein

at the ingress interface, the data packet is supplied with at least one data field, and wherein

this data field is removed at the egress interface.

26. (new) The method according to Claim 21, wherein at least one data field is provided by an MPLS label.

27. (new) The method according to Claim 20, wherein the identification data is written into a field provided as part of the format for the data packet.

28. (new) The method according to Claim 18, wherein

the egress interface is referenced by an identifier, wherein

the identifier of the egress interface is determined by reference to a network address in the network, to which the data packet is to be forwarded after it has traversed the packet-switched network, and wherein

the determination of the identifier of the egress interface is carried out at the ingress interface by reference to the network address, using a table.

29. (new) The method according to Claim 18, further comprising:

supplying the data packet at the access interface with an identification data used by the internal router for identifying the access interface, wherein the identification data include an identifier or a network address for the access interface; and

determining the data about the egress interface by the internal router by using address data extracted from the data packet.

30. (new) The method according to Claim 18, wherein the internal router determines the data about the access interface and the data about the egress interface by using address data extracted from the data packet.

31. (new) The method according to Claim 18, wherein the forwarding of the data packet is effected with the help of a routing table, the routing table assigns the data about the access interface at which the data packet entered the packet-switched network and the data about the egress interface to a network address for the next hop.

32. (new) The method according to Claim 18, further comprising:

supplying the data packet at the access interface with a data field for identifying the flow; and

performing the forwarding of the data packet by the internal router according to the data field.

33. (new) An internal router in a packet-switched network for performing a method for routing of data packets for avoiding circulation of the data packets, in a packet-switched network, made up of routers, which uses traffic distribution, the method comprising:

forwarding a data packet by an internal router of the packet-switched network; and

providing alternative routes for the forwarding of the data packet,

wherein

the forwarding of the data packet is carried out by using at least one item of data about the access interface at which the data packet entered the packet-switched network and on item of data about the egress interface, at which the data packet is to leave the packet-switched network, wherein the internal router comprises a routing table which assigns the data about the access interface at which the data packet entered the packet-switched network and the data about the egress interface to a network address for the next hop.